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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,657	09/29/2003	Billy Wayne Crue	SEAG 63203	4804

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Alan G. Towner
Pietragallo, Bosick & Gordon
One Oxford Centre, 38th Floor
301 Grant Street
Pittsburgh, PA 15219

EXAMINER

TALBOT, BRIAN K

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/674,657	Applicant(s) CRUE ET AL.	
	Examiner Brian K Talbot	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 13-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/30/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. The preliminary amendment filed 9/29/03 has been considered and entered. Claims 1-2 have been canceled. Claims 13-27 have been added and are the only remaining claims in the application.

Specification

2. The disclosure is objected to because of the following informalities:

On pg. 1, line 3, the Cross Reference section needs to be updated. Application Serial No. 09/809,118 is now US Pat. No. 6,693,768.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-19 recites the limitation "the write pole" which is unclear whether the limitation is for the first layer, second layer, both layers. Clarification is requested. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-15 and 26-27 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wada et al. (4,855,854).

Wada et al. (4,855,854) teaches a thin film perpendicular magnetic head which comprises forming a first pole (7) and a second pole (8) atop the first pole (7). An iron alloy can be utilized for the first pole material and can be applied by sputtering, pattern plating and vapor deposition (col. 3, lines 55-65 and Figs. 1g-1h). Figure 1h depicts the second pole layer (8) having a tapered edge.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wada et al. (4,855,854).

Features described above concerning Wada et al. (4,855,854) are incorporated here.

Wada et al. (4,855,854) fails to teach the claimed width of the pole layers and that the second pole layer's saturation magnetic field is less than that of the first magnetic pole layer.

While the reference is silent upon the width of the pole layers, it is the Examiner's position that the width is a result effective variable that is optimized through routine experimentation of one skilled in the art depending upon the desired end product. It has been well settled that the mere modification of a well know result effective variable is obvious absent a showing of criticality.

With respect to the different layers saturation magnetic fields, Wada et al. (4,855,854) teaches different materials for the layer sand hence it is the Examiner's position that the layers would inherently possess different characteristics including saturation magnetic fields.

Claim 17 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Wada et al. (4,855,854) in combination with Applicant's admitted state of the art (specification, pg. 1-3).

Features described above concerning Wada et al. (4,855,854) are incorporated here.

Wada et al. (4,855,854) fails to teach the claimed layers, i.e. yoke and return pole and them being coupled.

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Applicant's admitted state of the art (specification, pg. 1-3) teaches perpendicular magnetic heads which have a yoke and a return pole which are coupled.

Therefore, it would have been obvious for one skilled in the art at the time the invention was made to have modified Wada et al. (4,855,854) perpendicular head with the layers as evidenced by Applicant's admitted state of the art (specification, pg. 1-3) with the expectation of achieving similar success.

Allowable Subject Matter

6. Claim 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

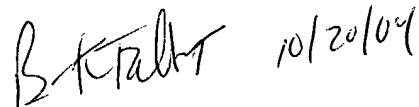
While the prior art teaches a first and second pole layer having a tapered area, the references are silent upon how the tapering is being formed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brian K Talbot
Primary Examiner
Art Unit 1762

BKT